PROTECTIVE DEVICE WITH END OF LIFE INDICATOR

ABSTRACT OF THE INVENTION

The present invention is directed to a protective device that includes a plurality of line terminals configured to be connected to an electrical distribution system, and a plurality of load terminals configured to be connected to a load. The device includes a fault detection circuit coupled to the plurality of line terminals and the plurality of load terminals. The fault detection circuit is configured to detect at least one fault in the electrical distribution system. A power interruption circuit couples the plurality of line terminals to the plurality of load terminals to thereby provide power to the load under normal operating conditions. The power interruption circuit also is coupled to the fault detection circuit, and configured to decouple the plurality of line terminals from the plurality of load terminals in response to the fault detection circuit detecting the at least one fault. A test circuit is coupled to the fault detection circuit and the power interruption circuit. The test circuit is configured to provide a simulated fault signal to the fault detection circuit in response to a user stimulus. An end-of-life indication circuit is coupled to the test circuit and the power interruption circuit. The end-of-life indication circuit provides the user with an end-of-life alarm indicator if the fault detection circuit fails to respond to the simulated fault signal within a predetermined period of time.